

**REMARKS**

**I. STATUS OF THE CLAIMS**

After amendment, claims 1, 4, 5, 8, 9, 12, 16, 18-20, 25, 27-29, 31, 64, and 87-88 are pending. Applicants canceled claims 13-15, 21-24, 26, 65-66, 69-71, 73-76, and 78-82 without disclaimer. Applicants added new claims 87-88.

Applicants amended claim 1 to recite "[a] foam comprising a liquid phase and a gas phase wherein the liquid phase comprises at least one sclerosing agent and at least one viscosity enhancing agent, the liquid phase having a viscosity between 2cP and 5cP; and the gas phase comprises at least 90% CO<sub>2</sub>; and wherein the foam has a density less than 0.25 g/ml and half life of greater than 90 secs." Applicants amended claim 8 to recite "wherein the half life is at least 100 seconds." Applicants amended claim 9 to recite "wherein the density ranges from 0.07-0.19 g/ml." Applicants amended claim 12 to recite "wherein the density ranges from 0.07-0.16 g/ml." Applicants amended claim 18 to recite "wherein the at least one sclerosing agent is chosen from polidocanol and sodium tetradecyl sulphate." Applicants amended claim 20 to depend on claim 19. Applicants amended claim 64 to recite "[a] method for producing a foam comprising passing a mixture comprising at least one physiologically acceptable blood dispersible gas, the said gas being at least 90% carbon dioxide, and at least one aqueous sclerosant liquid, the liquid comprising at least one sclerosing agent and at least one viscosity enhancing agent and having a viscosity between 2cP and 5cP, through one or more passages having at least one cross-sectional dimension of from 0.1 to 15  $\mu$ m, the ratio of gas to liquid being controlled such that the foam is produced having a density less than 0.25 g/cm and a half-life of greater than 90 secs." Support

for these amendments and new claims can be found at least in the specification as filed and original claims. Specifically, support for the amendments to claim 1 can be found, at least, at specification page 14, ¶¶ [0046] -[0047]. Accordingly, no new matter has been added by the amendments made to the claims.

## **II. DOUBLE PATENTING**

As an initial matter, applicants bring to the Examiner's attention that two of the applications cited below (i.e., U.S. Patent Application Nos. 11/171,293 and 11/225,860) that form the basis of the outstanding Double Patenting rejections originally published as International Publication WO 00/72821, published on December 7, 2000, and Applicants do not claim priority of this application.

### **1. U.S. Patent Application 10/522,527**

The Examiner maintained the rejection of claims 1, 4, 5, 8, 9, 12-14, and 18-20 under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 1 and 6-17 of co-pending Application No. 10/522,527. Applicants respectfully traverse.

Applicants canceled claims 13-14 and amended claim 1 to recite "[a] foam comprising a liquid phase and a gas phase wherein the liquid phase comprises at least one sclerosing agent and at least one viscosity enhancing agent, the liquid phase having a viscosity between 2cP and 5cP; and the gas phase comprises at least 90% CO<sub>2</sub>; and wherein the foam has a density less than 0.25 g/ml and half life of greater than 90 secs."

Applicants respectfully submit that claims 1 and 6-17 of co-pending Application No. 10/522,527 do not disclose a foam which has all of the following characteristics: (1)

at least one viscosity enhancing agent, (2) a liquid phase having a viscosity between 2cP and 5cP, (3) a gas phase of at least 90% CO<sub>2</sub>, (4) a density less than 0.25 g/ml, and (5) a half life greater than 90 seconds. Further, nothing in the cited claims suggests a foam including all of these elements. Specifically, the cited claims do not disclose any liquid viscosities, yet alone offer any suggestion for a foam with a specific viscosity of between 2cP and 5cP. Therefore, with this amendment, Applicants respectfully submit this rejection is moot and request it be withdrawn.

**2. U.S. Patent Application 10/890,267**

The Examiner maintained the rejection of claims 1, 8, 18-20, and 24-27 as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 1, 7, 10, 11, 12, 14, and 21 of co-pending Application No. 10/890,267. Applicants respectfully traverse.

Applicants canceled claims 24 and 26 and amended claim 1 to recite "[a] foam comprising a liquid phase and a gas phase wherein the liquid phase comprises at least one sclerosing agent and at least one viscosity enhancing agent, the liquid phase having a viscosity between 2cP and 5cP; and the gas phase comprises at least 90% CO<sub>2</sub>; and wherein the foam has a density less than 0.25 g/ml and half life of greater than 90 secs."

Applicants respectfully submit that claims 1, 7, 10, 11, 12, 14, and 21 of co-pending Application No. 10/890,267 do not disclose a foam which has all of the following characteristics: (1) at least one viscosity enhancing agent, (2) a liquid phase having a viscosity between 2cP and 5cP, (3) a gas phase of at least 90% CO<sub>2</sub>, (4) a density less than 0.25 g/ml, and (5) a half life greater than 90 seconds. Further, nothing

in the cited claims suggests a foam including all of these elements. Specifically, the cited claims do not disclose any liquid viscosities, yet alone offer any suggestion for a foam with a specific viscosity of between 2cP and 5cP. Therefore, with this amendment, Applicants respectfully submit this rejection is moot and request it be withdrawn.

**3. U.S. Patent Application 11/128,265**

The Examiner maintained the rejection of claims 1, 8, 9, 18-20, 26-28, and 31 as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 1, 7-18, 33, and 35-40 of co-pending Application No. 11/128,265. Applicants respectfully traverse.

Applicants canceled claim 26 and amended claim 1 to recite "[a] foam comprising a liquid phase and a gas phase wherein the liquid phase comprises at least one sclerosing agent and at least one viscosity enhancing agent, the liquid phase having a viscosity between 2cP and 5cP; and the gas phase comprises at least 90% CO<sub>2</sub>; and wherein the foam has a density less than 0.25 g/ml and half life of greater than 90 secs."

Applicants respectfully submit that claims 1, 7-18, 33, and 35-40 of co-pending Application No. 11/128,265 do not disclose a foam which has all of the following characteristics: (1) at least one viscosity enhancing agent, (2) a liquid phase having a viscosity between 2cP and 5cP, (3) a gas phase of at least 90% CO<sub>2</sub>, (4) a density less than 0.25 g/ml, and (5) a half life greater than 90 seconds. Further, nothing in the cited claims suggests a foam including all of these elements. Specifically, the cited claims do not disclose any liquid viscosities, yet alone offer any suggestion for a foam with a

specific viscosity of between 2cP and 5cP. Therefore, with this amendment, Applicants respectfully submit this rejection is moot and request it be withdrawn.

#### **4. U.S. Patent Application 11/171,293**

The Examiner maintained the rejection of claims 64-66, 69-71, 73, 74, 76, 78, 79, and 82 as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claims 68, 69, 71, 72, 74-76, 80-82, 87, 88, 91-94, 96, 97, 100-102, and 107 of co-pending Application No. 11/171,293. Applicants respectfully traverse.

Applicants canceled claims 65-66, 69-71, 73, 74, 76, 78, 79, and 82 and amended claim 64 to recite "[a] method for producing a foam comprising passing a mixture comprising at least one physiologically acceptable blood dispersible gas, the said gas being at least 90% carbon dioxide, and at least one aqueous sclerosant liquid, the liquid comprising at least one sclerosing agent and at least one viscosity enhancing agent and having a viscosity between 2cP and 5cP, through one or more passages having at least one cross-sectional dimension of from 0.1 to 15  $\mu$ m, the ratio of gas to liquid being controlled such that the foam is produced having a density less than 0.25 g/cm and a half-life of greater than 90 secs."

Applicants respectfully submit that claims 68, 69, 71, 72, 74-76, 80-82, 87, 88, 91-94, 96, 97, 100-102, and 107 of Application No. 11/171,293, now U.S. Patent No. 7,357,336, do not disclose a foam which has all of the following characteristics: (1) at least one viscosity enhancing agent, (2) a liquid phase having a viscosity between 2cP and 5cP, (3) a gas phase of at least 90% CO<sub>2</sub>, (4) a density less than 0.25 g/ml, and (5) a half life greater than 90 seconds. Further, nothing in the cited claims suggests a foam

including all of these elements. Specifically, the cited claims do not disclose any liquid viscosities, yet alone offer any suggestion for a foam with a specific viscosity of between 2cP and 5cP. Therefore, with this amendment, Applicants respectfully submit this rejection is moot and request it be withdrawn.

**5. U.S. Patent Application 11/225,860**

The Examiner maintained the rejection of claim 64 as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claim 1 of co-pending Application No. 11/225,860. Applicants respectfully traverse.

Applicants amended claim 64 to recite "[a] method for producing a foam comprising passing a mixture comprising at least one physiologically acceptable blood dispersible gas, the said gas being at least 90% carbon dioxide, and at least one aqueous sclerosant liquid, the liquid comprising at least one sclerosing agent and at least one viscosity enhancing agent and having a viscosity between 2cP and 5cP, through one or more passages having at least one cross-sectional dimension of from 0.1 to 15  $\mu$ m, the ratio of gas to liquid being controlled such that the foam is produced having a density less than 0.25 g/cm and a half-life of greater than 90 secs."

Applicants respectfully submit that claim 1 of co-pending Application No. 11/225,860 does not disclose a foam which has all of the following characteristics: (1) at least one viscosity enhancing agent, (2) a liquid phase having a viscosity between 2cP and 5cP, (3) a gas phase of at least 90% CO<sub>2</sub>, (4) a density less than 0.25 g/ml, and (5) a half life greater than 90 seconds. Further, nothing in the cited claim suggests a foam including all of these elements. Specifically, the cited claim does not disclose any liquid

viscosities, yet alone offer any suggestion for a foam with a specific viscosity of between 2cP and 5cP. Therefore, with this amendment, Applicants respectfully submit this rejection is moot and request it be withdrawn.

### III. CONCLUSION

Applicants respectfully submit that claims 1, 4, 5, 8, 9, 12, 16, 18-20, 25, 27-29, 31, 64, and 87-88 are in condition for allowance.

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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